PUBLIC HEALTH IN RHODE ISLAND:

An Epidemiologic/Economic Analysis

Rhode Island Department of Health

February 1999

INTRODUCTION

This report on public health services in Rhode Island was originally drafted for the Governor's Advisory Council on Health (GACH). A condensed variation of this report appears in the first report of the GACH. The Rhode Island Department of Health is disseminating the original report in its entirety for the information of those with a particular interest in public health.

This report indicates the wide range of both public and private agencies that play critical roles in the conduct of public health functions in Rhode Island. It highlights the central role of the Rhode Island Department of Health in the public health enterprise in Rhode Island.

Finally, this report analyzes public health in Rhode Island not only from epidemiologic and economic perspectives, but also from an organizational perspective. The future of public health in Rhode Island depends on a mature understanding of the roles, responsibilities, and contributions of public and private sector agencies that go beyond medical care.

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ACKNOWLEDGMENTS AND TECHNICAL NOTES

I wish to express my appreciation to the following individuals for their contributions to the completion of this document. David Casey pulled together the State level budget and expenditure statistics. Jonathan Agnew retrieved the Federal level funds flow information. Vicki Lombardi, Bonaventura Tavares, and Maria Lena Wilson did the word processing and constructed tables and figures. Michelle Santos edited *Your Health Department*, parts of which appear in this document. My thanks to all.

The Division of Substance Abuse was incorporated into the Department of Health in Fiscal Year 1996 and removed at the end of Fiscal Year 1998. Tables 4-7 and Figures 4-6, which relate to Fiscal Year 1998, exclude the former Division of Substance Abuse in order to more accurately reflect the Department of Health as it exists today. Table 3 and Figures 1-3 present Fiscal Year 1999 budget figures which naturally do not include the former Division of Substance Abuse.

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CURRENT SNAPSHOT

Mission

The Institute Of Medicine (IOM) in its 1988 landmark report, entitled The Future Of Public Health, defined the mission of public health as "**fulfilling society's interest in assuring conditions in which people can be healthy**."[1] The IOM further defined the mission of public health as follows:

- Its aim is to generate organized community effort to address the public interest in health by applying scientific and technical knowledge to prevent disease and promote health.
- It links many disciplines and rests upon the science core of epidemiology.
- The organizational framework of public health encompasses both activities undertaken within the formal structure of government and the associated efforts of private and voluntary organizations and individuals, but the governmental public health agency has a unique function: to see to it that vital elements are in place and that the mission is adequately addressed.

In 1994, The Public Health Functions Steering Committee, which consists of the American Public Health Association, the Association of State & Territorial Health Officials, the National Association of County & City Health Officials, the U.S. Public Health Service, and other prominent national public health associations and agencies, defined the Vision/Mission of public health as follows: **"Healthy People in Healthy Communities/Promote Physical and Mental Health and Prevent Disease, Injury, and Disability.**"[2] The Steering Committee further elaborated on the mission of public health as follows:

- Prevents epidemics and the spread of disease
- Protects against environmental hazards
- Prevents injuries
- Promotes and encourages healthy behaviors
- Responds to disasters and assists communities in recovery
- Assures the quality and accessibility of health services.

In addition, the Steering Committee defined "Essential" Public Health Services:

- Monitor health status to identify community health problems
- Diagnose and investigate health problems and health hazards in the community
- Inform, educate, and empower people about health issues
- Mobilize community partnerships to identify and solve health problems
- Develop policies and plans that support individual and community health efforts

[1] Institute Of Medicine, The Future of Public Health, Washington, DC: National Academy Press, 1998.

[2] "Public Health In America," Public Health Functions Steering Committee, July 1995.

- Enforce laws and regulations that protect health and ensure safety
- Link people to needed personal health services and assure the provision of health care when otherwise unavailable
- Assure a competent public health and personal health care workforce
- Evaluate effectiveness, accessibility, and quality of personal and population-based health services
- Research for new insights and innovative solutions to health problems.

Section 23-1-1 of the General Laws of Rhode Island, which defines the general functions of the Department of Health, provides an excellent mission statement for public health:

"The Department of Health shall take cognizance of the interests of life and health among the peoples of the state; shall make investigations into the causes of disease, the prevalence of epidemics and endemics among the people, the sources of mortality, the effect of localities, employments and all other conditions and circumstances on the public health, and do all in its power to ascertain the causes and the best means for the prevention and control of diseases or conditions detrimental to the public health, and adopt proper and expedient measures to prevent and control such diseases and conditions in the state."

The Department's current vision statement is that: **"All the people in Rhode Island will have the opportunity to live a safe and healthy life in a safe and healthy community."**

Thus, public health is not so much defined by any given set of institutions or services as it is defined by the prevailing disease patterns in the population and the pragmatic opportunities for prevention that exist at any given point in time.

Year 2000 Health Objectives:

The Year 2000 Health Objectives developed at the national and state levels have been a powerful tool in defining the mission of public health at the end of the 20th century. *Healthy People 2000: National Health Promotion and Disease Prevention Objectives* contains three overall goals:[3]

- Increase the span of healthy life for all Americans
- Reduce health disparities among Americans
- Achieve access to preventive services for all Americans.

Starting with over 300 national health objectives, the Rhode Island Year 2000 Health Objectives Task Force defined 25 priority Year 2000 health objectives for Rhode Island in the following areas:[4]

[3] Public Health Services, Healthy People 2000 National Health Promotion and Disease Prevention Objectives, Washington, DC: U.S. Department of Health and Human Services, 1990.

[4] Healthy People 2000 Rhode Island, Rhode Island Department of Health, 1993.

- Increase physical activity
- Increase healthy diet
- Reduce tobacco exposure
- Reduce alcohol and other drug related health problems
- Reduce the proportion of pregnancies that are unintended
- Reduce suicides and injurious suicide attempts
- Reduce the prevalence of mental disorders
- Reduce homicides and assault injuries
- Provide quality school health education
- Reduce unintentional injuries
- Identify, manage, and prevent work-related diseases and injuries
- Reduce children's blood lead levels
- Reduce exposure to environmental tobacco smoke
- Reduce risk to health from radon
- Reduce risk to health from drinking water
- Reduce infections caused by foodborne pathogens
- Improve oral health
- Reduce poor birth outcomes
- Reduce high blood pressure
- Increase screening for breast and cervical cancers
- Limit the prevalence of HIV infection
- Reduce the risk to the public from existing and emerging communicable diseases
- Increase childhood immunization levels
- Increase access to primary care
- Reduce limitations as a result of chronic conditions and disabilities.

In 1996, the Department of Health measured progress toward the achievement of the Rhode Island health objectives with publication of the *Mid-Course Review*.[5] The results of this analysis are summarized in Table 1. Table 1 indicates that there has been inadequate progress with respect to some of the most critical health objectives: physical activity, nutrition, tobacco use and alcohol & drug related problems. Overall, the Department of Health calculated that in 1995 Rhode Island was only 30% of the way toward reaching its Year 2000 Health Objectives.

[5] Healthy Rhode Islanders 2000, Mid-Course Review, Rhode Island Department of Health, 1996.

Table 1
Level of Improvement by Objective

Objective	Substantial Improvement	Some Improvement	No Improvement	Negative Direction	Insufficient Data
1 Physical Activity		X			
2 Nutrition				X	
3 Tobacco Use		X			
4 Alcohol & Drug Related Problems				X	
5 Unintended Pregnancies			X		
6 Suicide & Suicide Attempts	X				
7 Mental Disorders					X
8 Homicides	X				
9 School Health Education					X
10 Unintentional Injuries	X				
11 Work-Related Injuries		X			
12 Children's Blood Lead Levels	X				
13 Environmental Tobacco Smoke		X			
14 Radon			X		
15 Drinking Water Quality	X				
16 Food Borne Pathogens		X			
17 Oral Health		X			
18 Birth Outcomes	X				
19 High Blood Pressure Awareness					X
20 Breast & Cervical Cancer Screening		X			
21 HIV Prevalence	X				
22 Infectious Disease			X		
23 Immunization		X			
24 Primary Care					X
25 Limitations of Activity					X

Department of Health

In Rhode Island there is one, statewide Department of Health which is responsible for traditional public health services. There are no county or city health departments in Rhode Island. As the legally responsible governmental authority for public health in Rhode Island, the Department of Health represents the center or core for public health activities in the State. The Rhode Island Department of Health operates with 7 operational divisions and over 35 program areas as outlined in the Department's publication entitled *Your Health Department*:[6]

Central Management

Health Statistics

Uses health data to identify health problems among the state's population and subgroups and to assist health programs in planning and evaluation. Collects and disseminates information about health status, health care utilization, health insurance coverage, and related topics. Conducts the Behavioral Risk Factor Surveillance System, the Health Interview Survey, and other regular statewide health surveys. Administers the statewide hospital discharge data system.

Health Systems Development

Administers the state's "certificate of need" (C.O.N.) program designed to prevent unnecessary duplication of expensive medical services, facilities, and equipment. Analyzes C.O.N. applications by hospitals and ambulatory surgical facilities. Reviews proposed changes in ownership of existing licensed health care facilities. Staffs the state's Health Services Council.

Minority Health

Serves as a liaison to and monitors the health status of Rhode Island's racial and ethnic minority communities. Develops Minority Health Reports. Identifies local and federal funding opportunities for minority health program development. Staffs Director's Minority Health Advisory Committee.

Vital Records

Responsible for maintaining the State's vital records system. Collects, analyzes and reports data pertaining to births, deaths, marriages, divorces, and other health-related statistics. Issues certified copies of vital records.

[6] Your Health Department, A Guide to the Rhode Island Department of Health, 1997 Edition.

Disease Prevention and Control

Works to increase the span of healthy life for all Rhode Islanders by developing and advocating policies for prevention, by promoting healthy lifestyles and by improving access to effective primary care.

AIDS/Sexually Transmitted Diseases/Tuberculosis

Monitors the incidence of disease and conducts surveillance to help prevent its spread. Sponsors anonymous and confidential HIV testing and counseling services at numerous area sites. Conducts various educational programs to inform the general public and particular groups about the diseases and means of prevention. Provides funding for education, case management, treatment and other ancillary services for HIV/AIDS patients. Sponsors free, confidential services to diagnose and treat sexually transmitted diseases. Provides educational and counseling services to prevent the spread of sexually transmitted diseases. Administers the TB Control Program.

Communicable Diseases

Responsible for the detection, control, and prevention of communicable diseases. Monitors and conducts surveillance for the incidence of various reportable diseases, including meningitis, hepaitis B, Lyme disease, and other infectious diseases. Educates the public about these diseases and how to prevent them; increases access to clinical services for infectious diseases, such as tuberculosis. Administers the Rabies Control Program and responds to disease outbreaks.

Health Promotion and Chronic Disease Prevention

Promotes healthy lifestyles and reduces health risks such as smoking, poor nutrition and physical inactivity, works through major channels of schools, worksites, media, community-based organizations. Primary Prevention Programs include:

* Injury Control/ Bicycle Safety /Violence Against Women Prevention
* Nutrition
* Physical Activity
* Comprehensive School Health Programs
* Women's Breast and Cervical Cancer Screening

Primary Care

Works to improve the availability and quality of primary health care for all Rhode Islanders, by addressing financial and other access barriers to primary care; increasing the supply of primary care providers in the state (particularly in underserved areas); strengthening the link between state government, primary care training programs, the primary care community and other constituencies; and assessing and improving the quality of primary care. Educates the provider

community and the general public about the importance of incorporating prevention into primary care. Administers the State Loan Repayment Program, the Federal Primary Care Fellowship, a summer primary care experience for health professionals in training, and the Rural Health Program. Works closely with the community health centers to identify and address issues facing the medically underserved.

Diabetes Program

Works with health care providers, community agencies and diabetes experts to develop and provide programs to improve diabetes care in the State. Coordinates quality diabetes education statewide by certifying Diabetes Educators and Diabetes Education Programs. Collaborates with community agencies to provide medication, education and primary care access for persons with diabetes who are under/uninsured. Educates health care providers about quality diabetes care, treatment and prevention. Provides a free diabetes screening program for persons who are undiagnosed.

State Cancer Registry

Maintains data on all cases of cancer newly diagnosed in the State. Prepares surveillance reports to support cancer control planning, intervention and evaluation.

Family Health

Preserves, protects, and promotes the health and development of children and their families in Rhode Island. Responsible for assessment of health and developmental needs among children and young families, for planning effective systems and measures to address those needs, for evaluation of programs and policies affecting the health and development of children, and for management of the Maternal and Child Health programs providing prevention services to women and children through community agencies. Represents the Department in development of public-private community partnerships such as Child Opportunity Zones and Family Centers.

Adolescent and Young Adult Health Unit

Develops, leads and manages programs that address the health and development needs of school age youth and young adults. Monitors health status and assesses service and system needs of the population. Works collaboratively with state departments, local agencies and communities to assure access, quality and effectiveness of the state's programs focusing on preventive health for preadolescents and adolescents, reproductive health and responsibility, and the provision of health and social services and support to families and children at school.

Children's Preventive Services

Assures services for all children in Rhode Island, including newborn developmental and metabolic screenings, and immunizations; links childhood program databases to each other and

to health care providers (KIDS NET). Identifies children behind in preventive services and provides follow up through community-based Risk Response and Home Visiting Networks, in collaboration with providers, health plans, etc. Administers the childhood immunization and childhood Lead Poisoning Prevention Program.

Children with Special Health Care Needs

Administers case identification, service system development, needs assessment, and direct programs to address the needs of children at risk for significant chronic health and developmental problems. Programs include: perinatal screening for metabolic, hemoglobinopathy, hearing, and other developmental risks; early intervention programs; disability prevention, addressing brain injuries, ADA compliance; clinical specialty programs; and system development for children with complex technology-dependent conditions. Offers a statewide family- centered initiative for consumers including training for parents and professionals as well as technical assistance and disseminates educational resources.

Maternal and Child Health (MCH)

Assesses health status, service and system needs, and develops policies and programs to meet the needs of the state's women, children, and adolescents. Assures access, quality and effectiveness of the state's programs with a focus on reproductive health, preventive health, normal growth and development, and nutrition services for young families. Administers family planning and family life, prenatal programs including the Childhood Immunization Program, Childhood Lead Poisoning Prevention Program, Home Visiting Program, child and adolescent programs, and nutrition services and information.

Women, Infants, and Children (WIC) Program

Administers the WIC Program for low income pregnant and postpartum women and young children who have a nutritional risk. Services include assessment of nutritional status, provision of nutritious food, nutrition education, breastfeeding promotion and assistance in securing referrals to other services. Collects and evaluates data and develops policies and strategies to address need and integrate services within the health care system. Assures access, quality, and effectiveness in WIC services.

Environmental Health

Protects and promotes environmental health for all Rhode Island citizens.

Drinking Water Quality

Protects the public health by assuring that public drinking water supplies comply with the standards of the Safe Drinking Water Act. Identifies and controls sources of contamination threatening the safety of public drinking water by an extensive monitoring and surveying

program. Provides engineering review, the approval and on-site supervision of projects to improve public water system infrastructure through a state revolving loan fund. Ensures that public swimming pools are constructed and operated in a safe and sanitary manner. Ensures the safety of manufactured ice and bottled water.

Monitors private wells located in the vicinity of hazardous waste sites, alerts homeowners of contamination levels found, and counsels and assists homeowners who have contaminated well water.

Environmental Health Risk Assessment

Assesses the health risks of environmental and occupational hazards, contaminants, and exposures and enhances the level of knowledge and the ability to identify and respond to patient concerns regarding these hazards among Rhode Island primary health care providers. Works with the public, local, state, federal officials and agencies, professionals, and the media to expedite information exchange, risk assessment, risk management, and risk communication of environmental and occupational hazards. Manages the environmental lead program.

Food Protection

Protects and promotes health and prevents disease by assuring the safety and quality of the food supply through inspection, plan review and approval of food establishments, and investigation of complaints and foodborne disease outbreaks. Provides 24 hour emergency coverage for fires, accidents and natural disasters involving food products. Responsible for food labeling; protection against consumer fraud relating to food; response to certain environmental complaints; inspections of school and recreational facilities; bathing area sampling; and certification of food managers.

Occupational and Radiological Health

Protects Rhode Islanders from health and safety dangers at the worksite, radon and asbestos exposure, and from radiation hazards. Conducts inspections of X-ray equipment at worksites and health facilities and oversees an enforcement program for by-product radioactive materials. Responsible for enforcing the State's "asbestos abatement" law to protect the general public and construction workers from harmful exposure to asbestos fibers. Offers free safety and health consultation services to employers and educational programs for employees. Administers a comprehensive program for the assessment and mitigation of radon in homes, schools, and public buildings.

Laboratories

Microbiology Section - provides a broad spectrum of serological and microbiological analyses for the diagnosis and control of infectious diseases; provides microbiological analyses to ensure the wholesomeness of food and quality of water.

Chemistry Section - provides chemical and hematological analyses for metabolic diseases of the newborn, childhood lead poisoning, and hemoglobinopathies; provides physical and chemical analyses of foods to ensure their wholesomeness, purity and labeling; provides comprehensive laboratory services to support most of the air pollution, water pollution, and drinking water supply programs of the state.

Forensic Sciences Section - performs postmortem toxicological analysis for the Office of the State Medical Examiner, in cases of homicide, suicide, drug overdose, accidental death, etc.; examines evidence submitted by state and municipal law enforcement agencies in drug-related cases, sexual assault, and other violent crimes, driving under the influence, etc; and performs tests for the Department of Business Regulation.

Health Services Regulation

Provides oversight, policy direction and coordination to the Department's regulatory activities related to health services. Promotes the provision of high quality health care services through the enforcement of statutes, rules, and regulations. Provides for public hearings and administrative reviews as required.

Facilities Regulation

Licenses and certifies facilities that meet state and federal standards. Ensures the quality of care in nursing homes, hospitals, and various other health care facilities. Conducts unannounced inspections of licensed health care facilities and investigates consumer/patient complaints.

Professions Regulation

Administers the licensing, regulation, continuing education and disciplinary functions for more than sixty professions. Interacts with and provides staff support to some thirty-five statutorily established Boards. Issues more than sixty thousand licenses annually to individuals and facilities. Inspects regulated entities such as barbershops and funeral homes. Investigates complaints and ensures compliance with all statutory and regulatory obligations. Acts on behalf of the Director of Health to suspend or revoke licenses issued under any of its statutory bases.

Managed Care Regulation

Responsible for the certification of health care delivery components of health maintenance organizations (HMO's), registers utilization review agents, and certifies health plans. Provides regulatory oversight through regular surveys and investigation of consumer/patient complaints.

State Medical Examiner

Protects the citizens of Rhode Island by conducting medicolegal death investigations in cases of sudden, unexpected death in the community and death when injury is involved. The Medical Examiner determines the cause of death and the manner of death (homicide, suicide, accident, natural). The results are used to complete the death certificate, assist the criminal justice system, and identify public health hazards and dangerous practices. This information and data is also used to design programs and intervention methods aimed at preventing such deaths in the future. The Office maintains a 24-hour hotline utilized by law enforcement agencies and health care providers in the reporting of deaths to the Office.

In its various activities, the Department of Health engages many individual citizens, health care organizations, and businesses. For example, in 1996:

- 224,000 doses of vaccine provided to Rhode Island children
- 67 separate categories of health care professionals licensed
- 71,801 health professionals licensed (e.g., physicians)
- 38,683 children screened for lead poisoning
- 31,244 births, deaths, and marriages recorded
- 30,075 copies issued of birth, death, and marriage certificates
- 10,084 restaurants/food services inspected and licensed
- 5,500 HIV tests provided
- 4,800 clients served at STD clinics
- 4,293 businesses/services licensed (e.g., medical waste)
- 4,200 drinking water supplies tested
- 1,677 health facilities licensed (e.g., nursing homes).

In carrying out its responsibilities the Department works in conjunction with more than 35 official boards (See Table 2), and numerous coalitions such as the following:

- ASSIST Tobacco Prevention & Control
- Prevention Coalition: Physical Activity Campaign
- SAFEKIDS
- Healthy Schools! Healthy Kids!
- Rhode Island Lead Poisoning Control

[See "Experiments & Best Practices" section on Page 42 for more on coalitions.]

Table 2
Rhode Island Department of Health
Statutory Boards, Councils and Commissions

Ambulance Service Coordinating Advisory Board
Athletic Trainers, Board of
Barbering and Hairdressing, Board of
Chiropractic, Board of Examiners
Clinical Laboratory Science, Board of
Dentistry, Board of Examiners in
Dietetics Practice, Board of
Electrolysis, Board of Examiners in
Funeral Directors/Embalmers, Board of
Health Services Council
Hearing Aid Dealers and Fitters, Board of
Interpreters for the Deaf, Board of Examiners
Medical Licensure and Discipline, Board of
Mental Health Counselors and Marriage and Family Therapists, Board of
Midwifery Advisory Council
Nursing, Board of
Nursing Assistants Board
Nursing Home Administrators, Board of Examiners for
Nursing Non-Disciplinary Alternatives Board
Occupational Therapy Practice, Board of
Opticianry, Advisory Committee for
Optometry, Board of Examiners in
Pharmacy, Board of
Physical Therapy, Board of
Physician Assistants, Board of Licensure for
Plumbing, Board of Examiners
Podiatry, Board of Examiners in
Psychology, Board of
Radiological Technology, Board of
Radiation Advisory Commission
Residential and Assisted Living Care, Permanent Advisory Commission on
Self Sheathing of Needle Advisory Committee
Social Work Examiners, Board of
Speech Language Pathology and Audiology, Board of Examiners in
State Medical Examiners Commission
Veterinary Medicine, Board of

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Contributing Organizations

A number of other State agencies make important contributions to public health services such as:

- Department of Environmental Management (e.g., air and water quality)
- Department of Transportation (e.g., highway safety)
- Department of Education (e.g., school health education)
- Department of Human Services (e.g., health care coverage for low income mothers, infants, and children)
- Department of Children, Youth & Families (e.g., child abuse prevention services)
- Department of Business Regulation (e.g., health insurance rates)
- Department of Mental Health, Retardation & Hospitals (e.g., provision of mental health and substance abuse services for low income, chronically ill individuals)
- Department of Elderly Affairs (e.g., health promotion services for seniors)
- Department of Labor & Training (e.g., occupational safety and health)
- Department of Corrections (i.e., HIV Prevention)

In addition a wide variety of private organizations and agencies contribute to the public health mission:

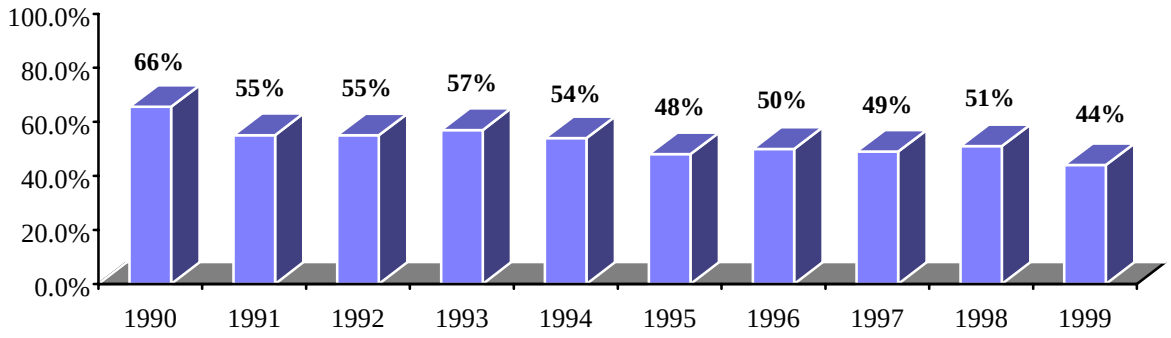
- churches
- community action agencies
- community health centers
- community mental health centers
- family services agencies
- health maintenance organizations
- hospitals
- minority organizations
- professional associations
- senior organizations
- substance abuse agencies
- visiting nurse services
- voluntary health agencies
- youth organizations
- and many others.

[See Appendix 1 on Page 47 for a list of specific private organizations receiving Department of Health grants and contracts.]

Sources and Uses of Funds

The Department of Health has three primary sources of funds: State General Revenue, State Restricted Receipts, and Federal Funds. In Fiscal Year 1999, the Department was budgeted for $71.0 million of which $26.5 million was State general revenue, $4.6 was State Restricted Receipts, and $39.9 million was Federal funds. Over the past nine fiscal years, the mix of State and Federal dollars coming into the Department of Health has changed substantially. In FY 1990, 66% of the Department's revenue was State dollars. In contrast, in FY 1999 only 44% was State and 56% was Federal. (See Figure 1.) The most dramatic increase in the Department of Health's budget over the same period of time came in FY 1996 with the creation of a Division of Substance Abuse in the Department of Health increasing the Department's total budget by approximately $24 million. (See Table 3.) In 1998, the Division of Substance Abuse was transferred to the Department of MHRH resulting in loss of over $20 million to the Department of Health. State funding for the Department of Health increased by 11.5% between FY 1990 and FY 1999. (See Figure 2.) With the addition of the Division of Substance Abuse, the Department of Health represented about 2% of total State expenditures. Prior to that and in FY 1999, the Department of Health represented about 1.5% of total State expenditures. (See Figure 3.)

Figure 1
Percent of Department of Health Expenditures* that are State Funded**



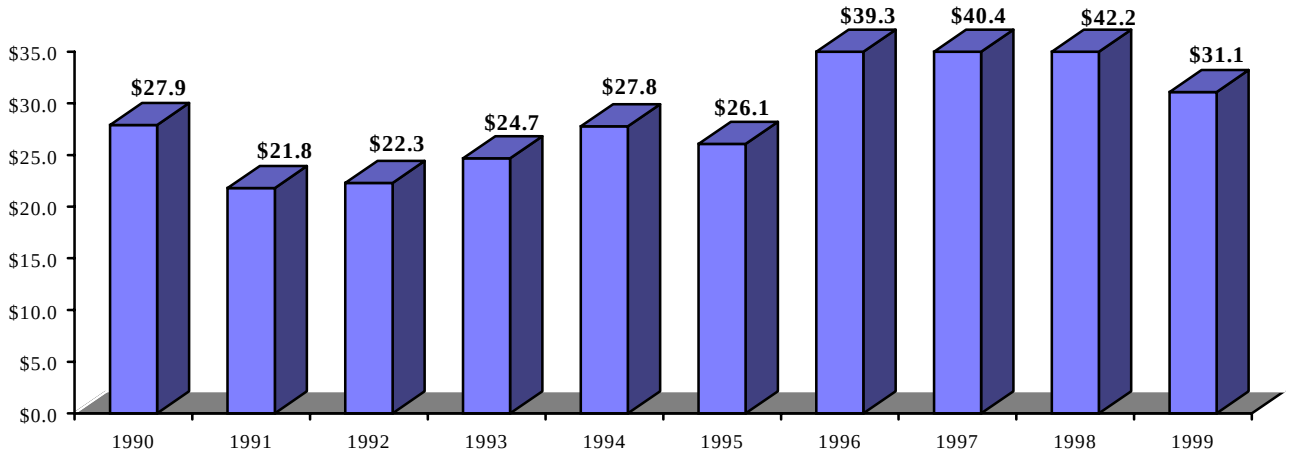
* Includes Division of Substance Abuse for FY 96, 97, and 98
** State funds equals General Revenue plus Restricted Receipts

Table 3
Department of Health Expenditures*
Fiscal Years 1990-1998
(In Millions)

Fiscal Year	General Revenue	Restricted Receipts	State Funds**	Federal Funds	Total Funds
1990	$24.8	$3.1	$27.9	$14.6	$42.5
1991	19.1	2.7	21.8	18.1	39.9
1992	18.4	3.9	22.3	18.2	40.5
1993	19.3	5.4	24.7	22.6	47.3
1994	18.2	9.6	27.8	23.9	51.7
1995	17.3	8.8	26.1	28.9	55.0
1996	36.7	2.6	39.3	39.8	79.1
1997	37.4	3.0	40.4	42.0	82.4
1998	39.3	2.9	42.2	40.1	82.3
1999	26.4	4.7	31.1	39.9	71.0

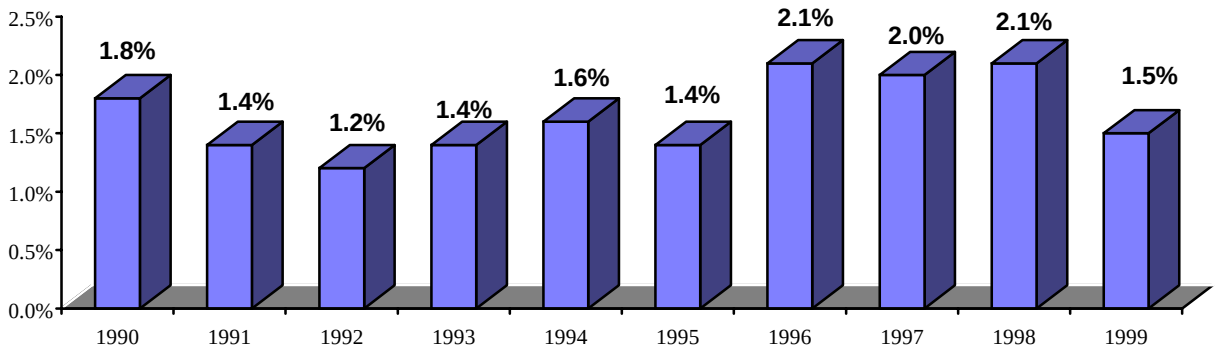
* Includes Division of Substance Abuse (DSA) for FY 96, 97, and 98
** State Funds equals General Revenues plus Restricted Receipts

Figure 2
Department of Health State-Funded Expenditures*
Fiscal Years 1990-1998



***Includes Division of Substance Abuse for FY 96, 97, and 98 and State Funds equals General Revenues plus Restricted Receipts

Figure 3
Department of Health Total Expenditures as Percent of Total State Expenditures*



*Includes Division of Substance Abuse for FY 1996, FY 1997, and FY 1998; and State Funds equals General Revenues plus Restricted Receipts

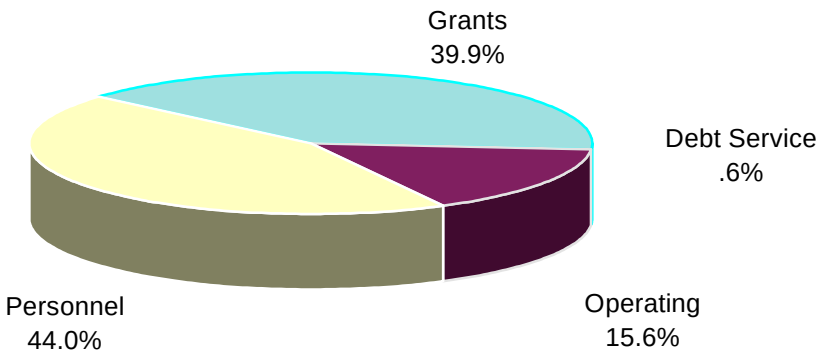
Personnel expenditures represent 44% of the Department of Health's overall expenditures. (See Table 4 and Figure 4.) Forty percent (40%) of the Department of Health's financial resources are used to support critical private sector, community-based public health activities (i.e., "grants"). Moreover, over one-half (56%) of the Department's Federal dollars are invested in private sector, community-based "grants." The types of agencies receiving Department of Health grants and funding levels are identified in Table 5 and Figure 5. The public health services, which these types of agencies provide and the respective dollar allocations, are displayed in Table 6.

Table 4
Department of Health
FY 1998 Expenditures
by Category of Use*

Category	General Revenue	Percent	Restricted	Percent	Federal	Percent	All Funding Sources	Percent
Grants	$5,594,845	22.5%	$158,611	5.5%	$18,827,045	55.6%	$24,580,501	39.9%
Personnel	$15,399,882	61.8%	$1,363,566	47.4%	$10,345,678	30.5%	$27,109,126	44.0%
Operating	$3,565,844	14.3%	$1,356,847	47.1%	$4,708,117	13.9%	$9,630,808	15.6%
Debt Service	$360,016	1.4%	$0	0.0%	$0	0.0%	$360,016	0.6%
All Categories	$24,920,587	100.0%	$2,879,024	100.0%	$33,880,840	100.0%	$61,680,451	100.0%

*Excludes former Division of Substance Abuse

Figure 4
Department of Health*
FY 1998 Expenditures By Category of Use



*Excludes former Division of Substance Abuse

Table 5
Grants and Assistance Funding by Type of Agency and Division
Rhode Island Department of Health, Fiscal Year 1998*

Agency Type / Division	Central Management	Disease Prevention & Control	Environmental Health	Family Health	Total
Academic Institutions	$75,000				$75,000
Community Action Programs				$124,765	124,765
Community Organizations[a]	81,290	$1,030,903	$897,298	32,167	2,041,658
Community Health Centers	21,000	385,928		14,196,713[b]	14,603,641
Developmentally Delayed Agencies				3,205,384	3,205,384
Health Maintenance Organizations		18,215			18,215
Hospitals	12,000	725,567		3,123,727[b]	3,861,294
Local Governments[c]	15,000	224,624			239,624
Minority Organizations	104,420	75,789		169,099	349,308
Professional & Industry Organizations		211,423			211,423
Substance Abuse Agencies		153,593			153,393
State Agencies[c]		173,796	1,674,575		1,848,371
Visiting Nurse Agencies		8,974		1,355,124	1,364,098
Voluntary Health Organizations		93,718			93,718
STATE	308,710	776,550		3,680,809	4,766,069
FEDERAL		2,325,980	2,571,873	18,526,170[b]	23,424,023
TOTAL	$308,710	$3,102,530	$2,571,873	$22,206,979	$28,190,092

[a]Includes: (1) agencies whose mission is primarily social service in nature, such as Family Service Agencies, Neighborhood Multi-Purpose Centers, Boys & Girls Clubs, YWCAs and Senior Centers. (2) Coalitions and crisis centers such as Rape Crisis Center, Coalition Against Violence, and Women's Health Collective. (3) Non-profit, disease-specific organizations such as Project AIDS, FACTS House and Sunrise House, exclusive of substance abuse funding.
[b]Includes WIC food money of $11,027,103 to Community Health Centers and $1,489,074 to Hospitals.
[c]Includes $1,674,575 to RI Housing and Mortgage Finance Corporation for the purpose of making low interest loans for the rehabilitation of lead damaged housing, and $173,796 to the Department of Corrections for AIDS programs.

*Excludes former Division of Substance Abuse.

Figure 5
Grants and Assistance Funding by Type of Agency
Rhode Island Department of Health, Fiscal Year 1998

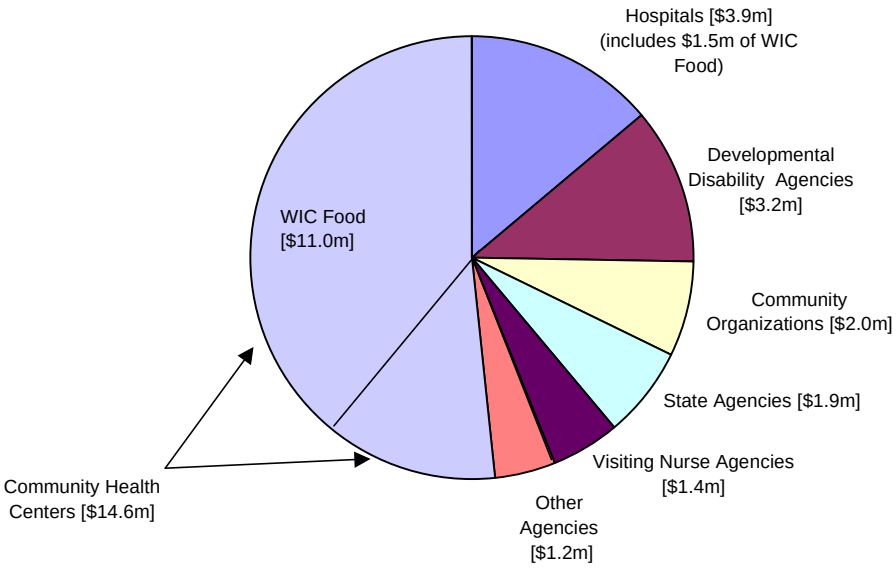


Table 6

Grants and Assistance Funding by Type of Agency and Program Activities- Rhode Island Department of Health, Fiscal Year 1998
Part 1 of 2

Agency Type / Program Activities	Breast & Certical Cancer Screening	Cancer Registry	Developmental Disability	Diabetes Education & Screening	Family Planning	HIV/AIDS Prevention & Control	Immuni-zation & Vaccine	Lead Screening & Abatement	Maternal & Child Health	Medical Education	Minority Health Promotion
Academic Institutions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$75,000	$0
Community Action Programs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Community Organizations	$86,530	$0	$0	$0	$0	$728,045	$10,000	$897,298	$0	$0	$81,290
Community Health Centers	$108,997	$0	$0	$55,764	$389,782	$22,499	$122,515	$0	$140,886	$0	$21,000
Developmentally Delayed Agencies	$0	$0	$3,035,384	$0	$0	$0	$0	$0	$170,000	$0	$0
Health Maintenance Organizations	$0	$0	$0	$18,215	$0	$0	$0	$0	$0	$0	$0
Hospitals	$367,263	$0	$485,647	$75,903	$52,418	$47,623	$128,900	$117,615	$52,860	$0	$12,000
Local Governments	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$15,000
Minority Organizations	$0	$0	$0	$0	$66,501	$10,000	$0	$0	$0	$0	$104,420
Professional & Industry Organizations	$0	$201,017	$0	$0	$0	$0	$0	$0	$0	$0	$0
Substance Abuse Agencies	$0	$0	$0	$0	$0	$124,768	$0	$0	$0	$0	$0
State Agencies	$0	$0	$0	$0	$0	$173,796	$0	$1,674,575	$0	$0	$0
Visiting Nurse Agencies	$4,667	$0	$345,250	$0	$41,710	$0	$0	$100,000	$200,000	$0	$0
Voluntary Health Organizations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL	$567,457	$201,017	$3,866,281	$149,882	$550,411	$1,106,731	$261,415	$2,789,488	$563,746	$75,000	$233,710

Table 6

Grants and Assistance Funding by Type of Agency and Program Activities- Rhode Island Department of Health, Fiscal Year 1998
Part 2 of 2

Agency Type / Program Activities	Newborn Screening	Sexual Abuse & Assualt Prevention	Sexually Tramitted Disease	School & Adolescent Health	Tobacco Control	TB Clinical Services	WIC Supple-ment Food	TOTAL
Academic Institutions	$0	$0	$0	$0	$0	$0	$0	$75,000
Community Action Programs	$0	$0	$0	$124,765	$0	$0	$0	$124,765
Community Organizations	$0	$184,162	$0	$0	$32,166	$0	$0	$2,041,658
Community Health Centers	$0	$0	$198,668	$283,604	$0	$0	$13,259,926	$14,603,641
Developmentally Delayed Agencies	$0	$0	$0	$0	$0	$0	$0	$3,205,384
Health Maintenance Organizations	$0	$0	$0	$0	$0	$0	$0	$18,215
Hospitals	$487,823	$0	$18,778	$0	$0	$216,000	$1,798,464	$3,861,294
Local Governments	$0	$0	$0	$0	$224,624	$0	$0	$239,624
Minority Organizations	$0	$0	$0	$124,765	$65,789	$0	$0	$349,308
Professional & Industry Organizations	$0	$0	$0	$0	$10,406	$0	$0	$211,423
Substance Abuse Agencies	$0	$28,825	$0	$0	$0	$0	$0	$153,393
State Agencies	$0	$0	$0	$0	$0	$0	$0	$1,848,371
Visiting Nurse Agencies	$668,164	$0	$0	$0	$4,307	$0	$0	$1,364,098
Voluntary Health Organizations	$0	$0	$0	$0	$93,718	$0	$0	$93,718
TOTAL	$1,155,987	$212,987	$217,446	$533,134	$431,010	$216,000	$15,058,390	$28,190,092

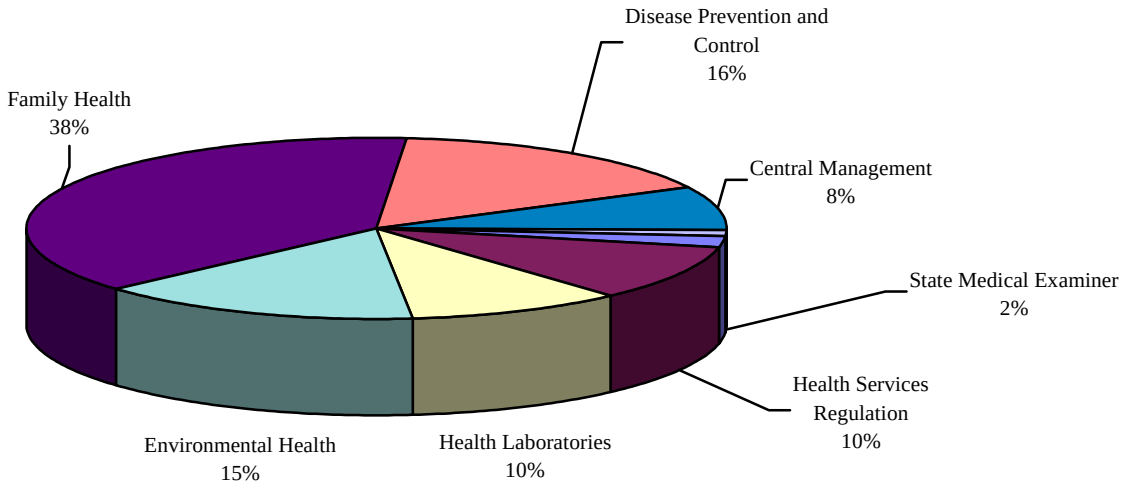
Based on FY 1998 expenditures for the Department of Health, (excluding the former Division of Substance Abuse) the Division of Health Laboratories has the highest percentage of State General Revenue dollars (23.5%) and the Division of Family Health has the highest percentage of Federal dollars (50.3%) and Total dollars (38.3%). Of the four main Divisions of the Department of Health, the Division of Health Services Regulation has the lowest percentage of Total dollars (10.3%). (See Table 7 and Figure 6.)

Table 7
Department of Health*
FY 1998 Expenditures
By Division

	General Revenue	Percent	Restricted	Percent	Federal	Percent	Total	Percent
Central Management	$2,165,026	8.7%	$1,388,098	48.2%	$1,307,063	4.0%	$4,860,190	7.9%
Disease Prevention & Control	$2,347,475	9.5%	$15,000	0.5%	$7,773,757	22.9%	$10,136,232	16.4%
Family Health	$5,174,315	20.8%	$1,377,715	47.9%	$17,056,421	50.3%	$23,608,451	38.3%
Environmental Health	$3,743,079	15.1%	$46,110	1.6%	$5,138,422	15.2%	$8,927,611	14.5%
Health Laboratories	$5,829,575	23.5%	$0	0.0%	$553,426	1.6%	$6,383,001	10.4%
Health Services Regulation	$4,224,203	17.0%	$52,101	1.8%	$2,051,946	6.1%	$6,328,250	10.3%
State Medical Examiner	$1,356,716	5.4%	$0	0.0%	$0	0.0%	$1,356,716	2.2%
Total	$24,840,389	100.0%	$2,879,024	100.0%	$33,881,035	100.0%	$61,600,451	100.0%

*Excludes former Division of Substance Abuse

Figure 6
Department of Health
FY 1998 Budget Use by Divisions



The U.S. Department of Health & Human Services (DHHS) is a major source of funding for public health services in Rhode Island. The two main sources of these funds within DHHS are the Centers for Disease Control & Prevention (CDC) (34%) and the Health Resources & Services Administration (HRSA) (30%). See Table 8 and Figure 7. The major recipients of these funds in Rhode Island are the Department of Health (62%) and Community Health Centers (15%). See Table 8 and Figure 8.

Table 8*

U.S. DHHS Public Health Funding**
in Rhode Island, Federal Fiscal Year 1997

	AOA	HRSA	IHS	CDC	SAMSA	HCFA	ACF	**Total**	Percent
Community Organizations		$784,218			$259,782		$497,823	**$1,541,823**	4.47%
Hospitals		$381,307						**$381,307**	1.11%
Local Government					$453,983			**$453,983**	1.32%
Rhode Island Department of Health		$3,809,374		$11,180,774	$4,815,869	$1,694,881		**$21,500,898**	62.39%
Other State Government	$2,509,807			$209,116		$128,913	$779,587	**$3,627,423**	10.53%
Professional and Industry Organizations		$89,806						**$89,806**	0.26%
Minority Organizations			$1,546,495				$50,000	**$1,596,495**	4.63%
Community Health Centers		$5,268,278						**$5,268,278**	15.29%
Total	**$2,509,807**	**$10,332,983**	**$1,546,495**	**$11,389,890**	**$5,529,634**	**$1,823,794**	**$1,327,410**	**$34,460,013**	100.00%
Percent	7.28%	29.99%	4.49%	33.05%	16.05%	5.29%	3.85%	100.00%	

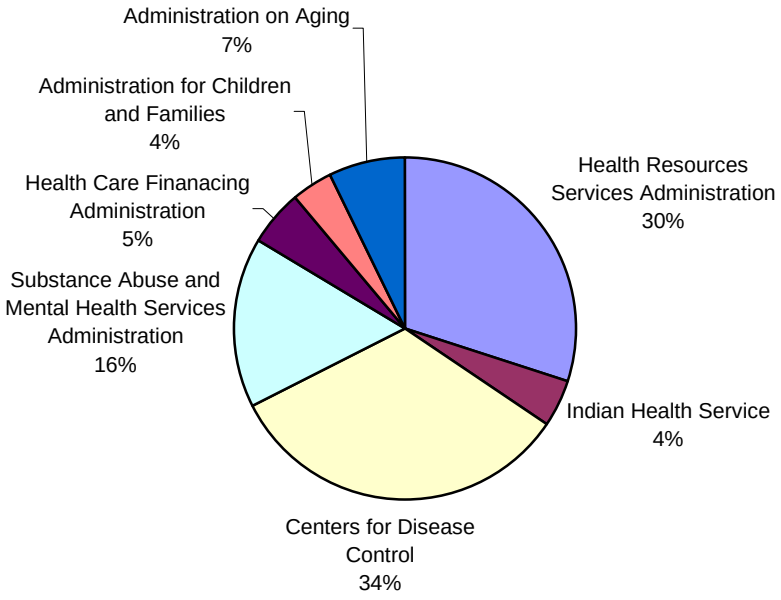
*Acronyms:

AOA	Administration on Aging
HRSA	Health Resources and Services Administration
IHS	Indian Health Services
CDC	Centers for Disease Control and Prevention
SAMSA	Substance Abuse and Mental Health Services Administration
HCFA	Health Care Financing Administration
ACF	Administration for Children and Families

**Does not include research funding.

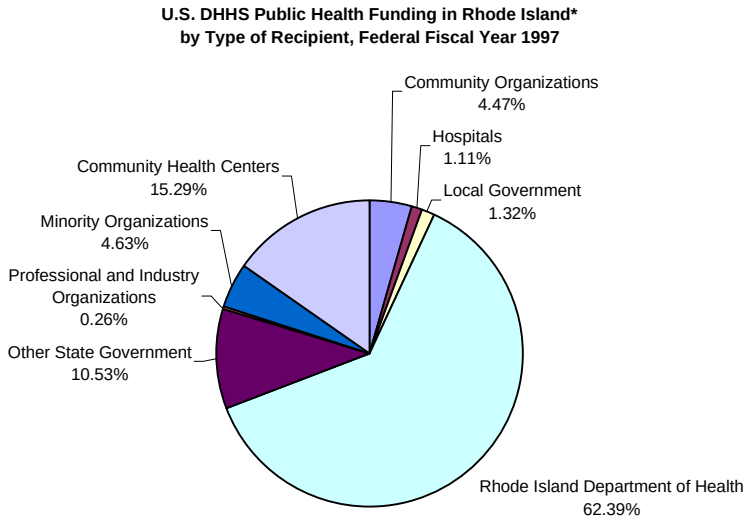
Figure 7

U.S. DHHS Public Health Funding in Rhode Island*
by Donor Agency , Federal Fiscal Year 1997



*Does not include research funding.

Figure 8



* Does not include research funding.

Expenditure Research

Historically the Public Health Foundation in Washington, D.C. conducted an annual Funds Flow study of State Public Health Agencies, tracking the sources and uses of these funds. These studies have not been conducted in recent years. However, in 1993 and 1995 Rhode Island participated in pilot studies to estimate public health expenditures by essential public health services. The 1995 study included nine States in all and attempted to address some of the weaknesses in the 1993 study. In the 1995 study, data were collected from State Environmental, Mental Health, and Substance Abuse agencies as well as Health Departments. Highlights from this study include:[7]

- More than **two-thirds** of the dollars spent by the nine states on essential public health services ($6.1 billion of $8.8 billion) went for **personal health services** (Table 9, 6b.) vs. population-based services.
- **Population-based** (Table 9, 1-5, 6a., 7-10) health services spending--$2.7 billion, or $36 per capita--was only **1% of total** health care expenditures ($3,342 per capita) in participating states.
- Of the $2.7 billion spent on population-based health services, the largest amount **(26%)** was for **enforcing laws and regulations** that protect the health and ensure the safety of the public.
- State Mental Health Agencies were the largest contributors to personal health services

[7] Measuring Expenditures For Essential Public Health Services, Public Health Foundation, Washington, D.C., November 1996

expenditures (71%).

- State Health Agencies were the largest contributors to population-based expenditures (63%).

In Rhode Island, the Department of Health was responsible for 64% of the population-based public health expenditures; while the Department of Mental Health, Retardation & Hospitals was responsible for 76% of the personal health care services (i.e., 6b assure the provision of care when otherwise unavailable). (See Tables 9 and 10.) Rhode Island devoted a larger percentage of its total public health expenditures on population-based health (45%) than the average for the study States (31%). (See Table 11.)

Table 9

EXPENDITURE SUMMARY - ALL AGENCIES - FY 1995 EXPENDITURES (000) RHODE ISLAND

ESSENTIAL PUBLIC HEALTH SERVICES*	TOTAL	STATE HEALTH AGENCY	LOCAL HEALTH DEPT	WIC	SUBSTANCE ABUSE AGENCY	ENVIRONMENTAL AGENCY	MENTAL HEALTH AGENCY
1. Monitor health status to identify and solve community health problems	6,005	4,489	0	842	0	534	140
2. Diagnose and investigate health problems and health hazards in the community	7,517	5,901	0	0	354	1,262	0
3. Enforce laws and regulations that protect health and ensure safety	18,457	7,927	0	0	30	10,500	0
4. Inform, educate, and empower people about health issues	9,073	3,539	0	0	3,586	1,878	70
5. Mobilize community partnerships and action to identify and solve health problems	4,063	2,309	0	288	1,396	0	70
6a. Link people to needed personal health services	4,248	3,219	0	288	741	N/A	0
6b. Assure the provision of care when otherwise unavailable	77,544	3,733	0	0	14,674	N/A	59,137
7. Evaluate effectiveness, accessibility, and quality of personal and population health services	5,778	4,261	0	288	437	0	792
8. Assure a competent public health and personal health care workforce	4,321	3,603	0	461	257	0	0
9. Develop policies and plans that support individual and community health efforts	4,356	2,823	0	461	204	447	421
10. Research for new insights and innovative solutions to health problems	582	109	0	230	0	105	138
TOTAL ESSENTIAL	141,942	41,913	0	2,858	21,677	14,726	60,768
General Administration	4,100	2,845	0	0	1,022	233	0
All Other	49,311	393	0	8,675	1,202	39,041	0
TOTAL	195,353	45,151	0	11,533	23,901	54,000	60,771

*"Personal health services" are 6b. "Population-based health services" are all other essential public health services.

Source: ~~Measuring Expenditures For Essential Public Health Services~~, Public Health Foundation, Washington, D.C., November 1996.

TABLE 10

Estimated Public Health Expenditures and Total Agency Expenditures in Rhode Island (in thousands), FY 1995

State Departments	Essential Public Health Services: Personal Health		Essential Public Health Services: Population-based Health		WIC (Food only)		OTHER		TOTAL	
Health (DOH) (Including WIC)	$3,733	1.9%	$41,038	21.0%	$8,675	4.4%	$3,238	1.7%	$56,684	29.0%
Local Health Departments	NA		NA				NA		NA	
Mental Health (MHRH)	59,137	30.3%	1,631	0.8%			NA		60,771	31.1%
Substance Abuse (DSA)	14,674	7.5%	7,003	3.6%			2,224	1.1%	23,901	12.2%
Environment (DEM)	NA		14,726	7.5%			39,274	20.1%	54,000	27.6%
TOTAL	$77,544	39.7%	$64,398	33.0%	$8,675	4.4%	$44,736	22.9%	$195,358	100.0%

Source: ~~Measuring Expenditures For Essential Public Health Services~~, Public Health Foundation, Washington, D.C., November 1996.

Table 11
State Profile Table

State	Total Estimated Expenditures for Essential Public Health Services (000)s			Estimated Per Capita Expenditures for Essential Public Health Services					Per Capita
							Population-based Health		Total
	Total	Personal Health*	Population-based Health	Population (000)s	Total	Personal Health	Total	Total Excl. Environ	Health Care Expenditures
Arizona	$468,040	$308,391	$159,649	4,218	$111	$73	$38	$24	$3,708
Iowa	$145,915	$83,033	$62,882	2,842	$51	$29	$22	$17	$3,081
Louisiana	$372,720	$226,946	$145,774	4,342	$86	$52	$34	$25	$3,455
New York	$3,974,731	$3,057,234	$917,497	18,136	$219	$168	$51	$48	$4,019
Oregon	$452,332	$286,271	$166,061	3,140	$144	$91	$53	$37	$2,731
Rhode Island	$141,944	$77,544	$64,400	990	$143	$78	$65	$50	$3,422
Texas	$1,653,850	$1,050,989	$602,861	18,724	$88	$56	$32	$16	$2,860
Washington	$737,762	$389,967	$347,795	5,431	$136	$72	$64	$53	$2,840
Total	$7,947,294	$5,480,375	$2,466,919	57,823	$137	$95	$43	$36	$3,342

* Personal health covers essential service (6b). Assure the provision of care when otherwise unavailable. 71% of total personal health care expenditures came from mental health agencies, which allocated 98% of their total expenditures to personal health care. Population-based health covers all other essential services.

Source: Measuring Expenditures For Essential Public Health Services , Public Health Foundation, Washington, DC, November 1996.

Human Resources

Public health is a multidisciplinary activity requiring input from many different disciplines and professions in order to be successful: epidemiology, demography, statistics, medicine, nursing, psychology, social work, law, planning, policy analysis, environmental science, education, communication, community organization, administration, economics, finance, etc. The Rhode Island Department of Health has such a multidisplinary workforce. The Department has 470 employees, including 8 M.D.'s, 18 Ph.D.'s, 102 individuals with Master's Degrees, and over 24 R.N.'s (taken together representing about 1/3 of the workforce). This is a highly skilled workforce representing a multiplicity of educational preparations and professional experiences.

FORCES THAT HAVE SHAPED PUBLIC HEALTH

Epidemiologic Shift

The disease patterns in the population have shifted substantially over the last century dramatically changing the challenges facing public health. One hundred years ago infectious and communicable diseases were the primary threats to population health. Today, injuries and chronic diseases represent the primary threats to public health. In 1900 the leading causes of death were: Pneumonia & Influenza, Tuberculosis, and Acute Intestinal Infections. Today, the leading causes of death are: Cardiovascular Disease, Cancer, and Injuries.

Consolidation Legislation

In 1964 Rhode Island enacted legislation consolidating all local and state public health functions into one statewide Department of Health in order to improve the efficiency and effectiveness of public health practice in Rhode Island, the smallest State in the union.[8] This was a critical turning point for public health in Rhode Island. In the early years of public health in Rhode Island, the City of Providence was a national leader in public health under the leadership of Dr. Edwin M. Snow (1850's-1870's) and Dr. Charles V. Chapin (1880's-1930's).[9,10] With the creation of one statewide Department of Health in Rhode Island, the responsibility for public health had totally shifted to the State level.[11]

Private Sector Contracting

At the same time that Rhode Island was consolidating public health into one statewide Department, the Federal government was promoting the Partnership For Health Act, encouraging working partnerships between the public and private sectors to improve health (1967). At that time, a key strategic decision was made by the Department of Health. Consistent with the Partnership For Health Act, the Rhode Island Department of Health decided to contract for the provision of many of its non-regulatory services, rather than deliver these services directly.

For example, the Department decided to purchase services from private, non-profit Community Health Centers rather than run its own public health clinics. It was hoped that this strategy would help to engender a seamless, uniform quality health service system in Rhode Island. Unfortunately, it also served to make the Department of Health somewhat invisible at the local level.

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[8] Changing Conceptions of Public Health, A Cennial History of the Rhode Island Department of Health, 1878-1978, Rhode Island Department of Health, 1978.

[9] Government of Health: The Formation of the Rhode Island State Board of Health, Rhode Island Department of Health, July 1977.

[10] Waters, William J., "Charles V. Chapin, MD, "Rhode Island Medical Journal, Vol. 74, September 1991, pp. 437-439.

[11] Ibid, Changing Conceptions of Public Health.

Professionalization

With the creation of the single, statewide Department of Health, there was a concerted effort on the part of Dr. Joseph Cannon to professionalize the workforce of the Department of Health with full-time people who had solid education, training, and experience in the various areas required for public health practice such as: Vital Records, Food Protection & Sanitation, Laboratory Science, Environmental Health, Preventive Medicine, and many other areas. The State Civil Service System through the creation of official job requirements and job protections helped to foster the professionalization process. Consolidation of public health in Rhode Island permitted the State to recruit a level of talent that would not be possible under a fragmented system.

U.S. Public Health Service

The organization and operations of the Federal public health agencies under the Surgeon General and the Assistant Secretary for Health over the past thirty years has had an enormous influence on the development of public health in Rhode Island and all the States. The U.S. Public Health Service and its constituent agencies (such as the Centers for Disease Control & Prevention (CDC), the Health Resources & Services Administration (HRSA), and the Substance Abuse & Mental Health Services Administration (SAMHSA), have provided State and local health departments with guidance, funding, and technical assistance. These Federal efforts have had a profound impact on public health resources, priorities, competencies and directions at the State and local levels.

Federal Retrenchment

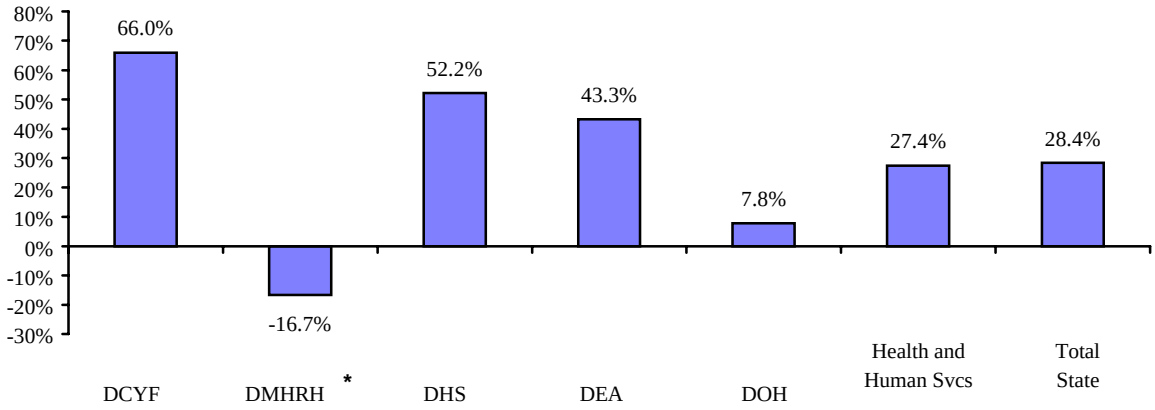
As noted above, Federal actions have had a profound impact on the practice of public health in the United States. These actions have had both positive and negative effects. In the 1980's, the Federal government took a giant step back from its support for public health at the State and local levels. In particular, this retrenchment hit the areas of analysis and planning the hardest. After 40 years (beginning in 1945) of continuous Federal financial support for health planning at the State and local levels, the Federal government abandoned this area of public health practice resulting in the collapse of health planning programs in most States and localities including Rhode Island. The Federal government's 20 year effort to build health statistics capabilities at the State level through the Cooperative Health Statistics System (CHSS) was also abandoned. The resulting lack of comparable health statistics at the State level was painfully recognized during the health care reform debates of the early 1990s. The Federal retrenchment in these two areas alone resulted in the loss of $2 million to Rhode Island on an annual basis severely limiting public health statistical and public health planning efforts.

State Constraints

The 1990's brought a stagnant economy to Rhode Island putting enormous pressure on the State budget and in turn on public health. From FY 1990 until FY 1998, the Department of Health has operated with basically a flat to shrinking State budget which translates into substantial budget

cuts after inflation is taken into account. Fortunately, the Department has managed to compensate for these exacting state constraints through the aggressive pursuit of Federal grant opportunities. Nevertheless, those areas which are most dependent on State dollars such as Vital Records, Food Protection, Facilities Regulation, and Occupational Health have suffered from the sluggish State economy of the 1990's.[12] In fact, it would appear that the Department of Health has suffered from economic recession in a disproportionate way vis-a-vis other State Departments. (See Figure 9.)

Figure 9
State-Funded Expenditures
Percentage Change FY 1990-1998



* DMHRH drop due to an accounting change

Entitlement vs. Discretionary Programs

One of the key realities of public health is that it is a so-called "discretionary" program in the Federal and State budgeting processes. That means it is not an "entitlement" program such as Medicare, Medicaid, Social Security, and Welfare where individuals have a personal legal right to benefits. The entitlement programs are the fastest growing part of Federal and State budgets; and in the drive to balance public budgets they are squeezing the discretionary programs such as public health. Projected growth patterns of entitlement programs over the next 10 years leave little room for discretionary programs such as public health which must fight for annual appropriations just to stay alive.

[12] Waters, William J., "Public Health In Rhode Island: A Strategic Allocation Perspective," Rhode Island Medicine, Vol. 78, April 1995, pp. 109-112.

INDICATIONS FOR THE FUTURE

Institute Of Medicine Report

The landmark IOM Report on *The Future Of Public Health*, which was published in 1988, set out a new vision for public health based on three core functions:[13]

- assessment
- policy development
- assurance

This historic Report envisioned a future for public health based largely on analysis and guidance, rather than service delivery. In many ways, this perspective takes public health back to its roots and fits well with the use of managed care for both the commercially insured and Medicaid populations.

Managed Care

The emergence of managed care as the dominant force in health care delivery today has major implications for public health as well as the rest of the health care system. To some public health agencies that are heavily invested in the delivery of personal health services, managed care represents a threat. However, managed care is also presenting many opportunities to public health:

- the opportunity to shift resources from personal health services to population-based health services
- the opportunity to build preventive medicine and health promotion into an integrated system of care
- the opportunity to build partnerships with private sector entities which have population-based responsibilities complementary to public health
- the opportunity to focus on quality assurance in health care.

The Institute of Medicine recently recommended that "governmental public health agencies should increase their ability to oversee health care providers, with the goal of becoming coequal partners with insurance regulators and state Medicaid agencies, to insure that the public's health is addressed in the regulation of public and private health delivery systems."[14]

[13] Ibid, The Future of Public Health.

[14] Healthy Communities, New Partnerships for the Future of Public Health, Institute of Medicine, 1996.

Quality Assurance

The dramatic movement of the health care system away from retrospective, fee-for-service payment to prospective, capitation payment in the context of managed care and the growth of for-profit health care corporations and networks has shifted the weight of public concern from cost-containment to quality assurance. Because the financial incentives in health care have been largely turned up-side-down, we are no longer concerned with too much care as we are with too little care. The public wants more oversight of health care services and more public reporting on the performance of health care organizations as evidenced by opinion polls, commission reports, and legislative initiatives. Oversight of quality is a traditional role of public health through the licensure process and has been expanding in Rhode Island with the addition of responsibilities to certify Health Maintenance Organizations (HMO's), Utilization Review (UR) Organizations, and Health Plans (Health Care Accessibility And Quality Assurance Act of 1996). In addition, the Rhode Island General Assembly has recently (1996, 1997, and 1998 sessions) given the Department of Health substantial responsibility for oversight of hospital charity care, hospital conversions (change of ownership), and health care facility performance measurement.

Epidemiologic Evidence

There is a growing realization that the health of the population does not depend as much on medical care as it does on daily lifestyles. In a watershed article, Drs. Michael McGinnis and William Foege pointed out that our contemporary leading causes of mortality are rooted for the most part in personal/social behavior patterns such as tobacco use, diet/activity and substance abuse.[15] (See Table 12 and Figure 10 and 11)[16, 17] Thus, the key to improving the health of the population in 1998 lies in lifestyle change, both at the individual level and at the societal level. There are proven strategies for promoting healthy lifestyles that can be employed. Healthy lifestyles can be promoted through school health education, worksite wellness, mass media health communication, and public health legislation.[18] Given the substantial contribution of injuries to premature deaths and years of potential life lost (YPLLs), the prevention of injuries deserves to be a societal priority along with the prevention of heart disease and cancer. (See Figure 12) In addition, new emerging infections, the role of infection in chronic diseases, and the mapping of the human genome all have important implications for the development of prevention strategies.

[15] J. Michael McGinnis & William Foege, "Actual Causes of Death in the United States," JAMA, November 1993.

[16] Prevention Report, "A Time for Partnership, Report of State Consultations on the Role of Public Health," U.S. Public Health Service, December 1994/January 1995.

[17] Meyer J.A., Regenstein M., How To Fund Public Health Activities, Partnership for Prevention, 1994.

[18] Health Promotion Disease Prevention Venues for Making It Happen, Rhode Island Department of Health, 1997.

Table 12
Causes of Death: 1990

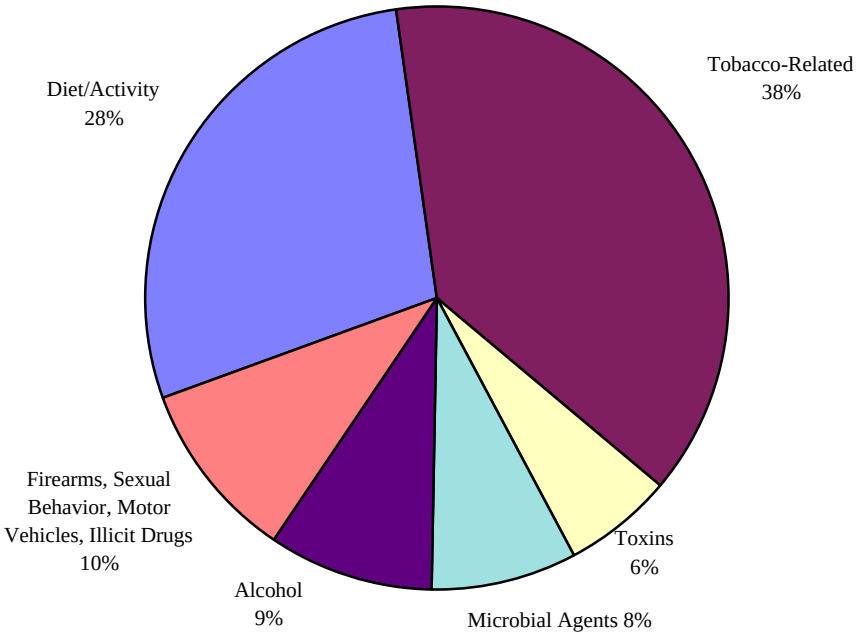
10 Leading Causes of Death*		Actual Causes of Death**	
Heart disease	720,058	Tobacco	400,000
Cancer	505,322	Diet/inactivity patterns	300,000
Cerebrovascular disease	144,088	Alcohol	100,000
Unintentional injuries	91,983	Certain infections	90,000
Chronic lung disease	86,679	Toxic agents	60,000
Pneumonia and influenza	79,513	Firearms	35,000
Diabetes	47,664	Sexual behavior	30,000
Suicide	30,906	Motor vehicles	25,000
Chronic liver disease	25,815	Drug use	20,000
HIV infection	25,188		
TOTAL	1,757,216	TOTAL	1,060,000

*Source: National Center for Health Statistics, "Advance Report of Final Mortality Statistics, 1990," Monthly Vital Statistics Report, Vol.41, No. 7.

**Source: McGinnis, J.M. and Foege, W.H. "Actual Causes of Death in the United States", The Journal of the American Medical Association, 1993, 270:2207-2212

Source: Prevention Report, "A Time for Partnership, Report of State Consultations on the Role of Public Health," U.S. Public Health Service, December 1994/January 1995.

Figure 10
Major Causes of Death Among U.S. Residents
Reducing the toll of these would make a strong impact on the health of the public.

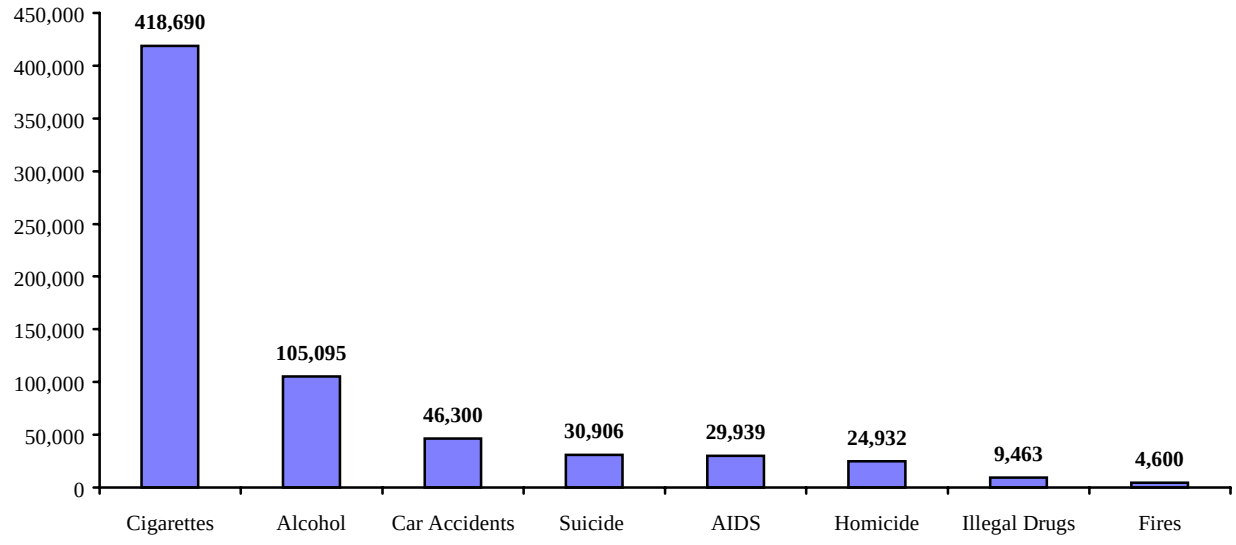


Source: McGinnis, J.M and Foege, W.H. 1993, "Actual Causes of Death in the United States," JAMA, 1993, 207(18):220712

Source: Meyer, J.A., Regenstein, M., How To Fund Public Health Activities, Partnership for Prevention, 1994.

Figure 11

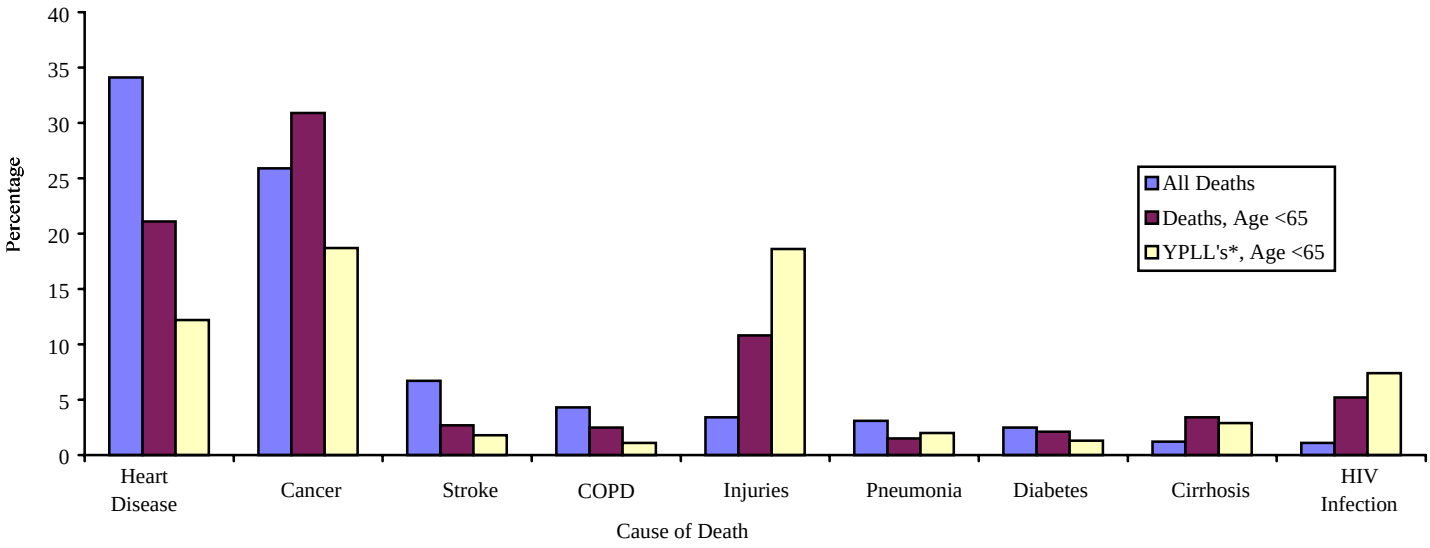
Cigarettes Kill More Americans than AIDS, Alcohol, Car Accidents, Fires, Illegal Drugs, Murders and Suicides Combined.



Source: Centers for Disease Control, U.S. Department of Health and Human Services. Chart produced by the Coalition on Smoking OR Health.

Figure 12

Deaths, Premature Deaths, and YPLL's* for Leading Causes of Death, Rhode Island Occurrences, 1995



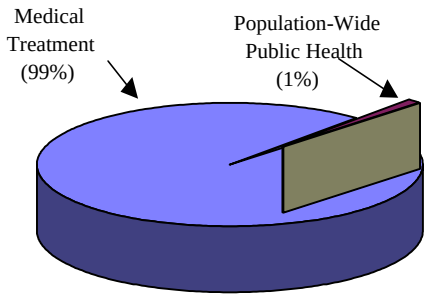
*Years of Potential Life Lost, defined as [65 years – age at death]

Resource Allocation

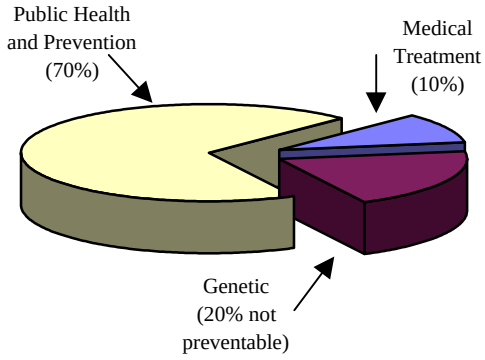
The epidemiologic evidence for population-based health promotion is not reflected in the allocation of health care dollars. (See Figure 13.)[19] In fact, population-based primary prevention efforts represent less than 1% of our health spending. (See Figure 14.)[20] Surprisingly, public health professionals estimate that a "fully effective" population-based public health program could be implemented with around 3% of the national health care expenditures.[21] (See Table 13.) Evidently, an ounce of prevention is worth more than a pound of cure. In its most recent report on the future of public health, the Institute Of Medicine (IOM) states that: **"society must reinvest in governmental public health, with resources, commitments, and contributions from government, private and non-profit sectors, and substantial legal authorities, if the public's health is to improve."**[22]

Figure 13
Is This a Rational Investment Strategy?

Proportion of health expenditures going to the population-wide core functions of public health v. medical treatment.



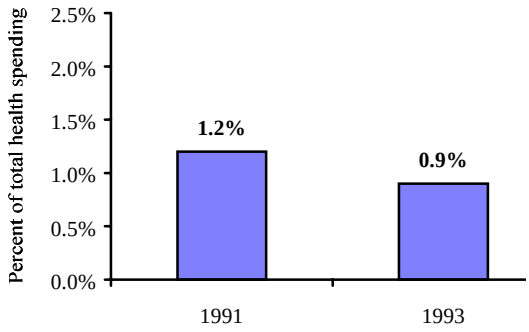
Proportion of early deaths that could be prevented by population-wide public health approaches v. medical treatment



Source: Prevention Report, "A Time for Partnership, Report of State Consultations on the Role of Public Health," U.S. Public Health Service, December 1994/January 1995.

[19] Ibid, Prevention Report.
[20] Ibid, How To Fund Public Health Activities.
[21] The Core Functions Project, Health Care Reform and Public Health, A Paper on Population-Based Core Functions, Rockville MD: U.S. Public Health Service, 1993.
[22] Healthy Communities, New Partnerships for the Future of Public Health, Institute of Medicine, 1996.

Figure 14
Public Health Spending as a Percent of Total Health Spending
Selected Years



Source: Meyer, J.A., Regenstein, M., How To Fund Public Health Activities, Partner for Prevention, 1994.

Table 13
Need for Investment in Population-Based Public Health Functions

Expenditures (in billions)			
	Current	Essential	Fully Effective
Public Health Service	$3.0	$5.4	$8.5
Federal Grants to State and local health departments	$1.3	$5.9	$12.4
State and local health departments	$4.1	$4.1	$4.1
Total	**$8.4**	**$15.4**	**$25.0**
As a percent of total national health expenditures	0.9%	1.7%	2.7%

Source: The Core Functions Project, Health Care Reform and Public Health, A Paper on Population-Based Core Functions, Rockville, MD: U.S. Public Health Service, 1993.

Private Sector Developments

The Rhode Island Public Health Foundation (RIPHF) was formed in 1993 and the Rhode Island Public Health Association (RIPHA) was formed in 1997 in recognition that public health cannot be successful if it is solely a public sector enterprise. The Rhode Island Public Health Foundation (RIPHF) was formed to insure that Rhode Island was maximizing its opportunities for Federal and Private Foundation funding of public health research and development projects. Budgetary and personnel constraints in State government act as a formidable constraint to public health resource development. The Rhode Island Public Health Association (RIPHA) was formed in 1997 to organize and activate private sector professionals interested in the advancement of public health in Rhode Island. There is much public health talent in the private sector in Rhode Island that represents a potential reservoir of energy for community-wide public health initiatives. The current investment in public health is so meager that all potential sources of support must be enlisted.

Education & Training

The future of public health in Rhode Island is not only dependent on the adequacy of financial resources that are available, but it is also dependent on the adequacy of human resources that are available. Unfortunately, in the past, Rhode Island has been at a disadvantage in this regard due to the lack of formal public health education and training opportunities in Rhode Island. This is now being addressed. The Rhode Island Department of Health installed a satellite dish on the roof of the Cannon Building in November 1997. This satellite dish is capable of down-linking distance learning programs from the Centers for Disease Control & Prevention (CDC), the Health Care Finance Administration (HCFA), Schools of Public Health, and other sources making the Rhode Island Department of Health a viable center for public health education and training. The Rhode Island Department of Health is working with the University of Rhode Island and Brown University to establish a Master's in Public Health program which would be conducted on nights and weekends in order to respond to the need for graduate level education and training in public health for employed professionals in Rhode Island. Over 100 individuals in the Rhode Island Department of Health alone have expressed interest in this opportunity. In addition, Brown University is developing a Public Health Program and will be looking for the Department of Health to increase its role in the training of medical students.

Demographic Shifts

There are two major demographic shifts taking place in Rhode Island and the United States which will have major impacts on public health practice and health care in general. First, the fastest growing segments of the population are the so-called "minorities," African-Americans, Native-Americans, Asian-Americans, and Hispanic-Americans. Over the past six years in Rhode Island, while the non-Hispanic white population fell by 31,000, the Hispanic population grew by nearly 30% to 59,475; the Asian population increased 13% to 21,328; and the Black population

grew by 9% to 47,050.[23] These groups suffer a disproportionate amount of mortality, morbidity and health care access barriers. "Despite advances in other areas, life expectancy for blacks remains less than for whites, and with certain diseases (asthma, diabetes, major infectious diseases and several forms of cancer), blacks are faring even worse than they did before."[24] At the same time, the population is aging. Today, about 15% of the population is 65 years of age or older. In another 30 years, 20% of the population will be 65 years of age or older. Again, the elderly experience a disproportionate amount of mortality and morbidity; and they require more health services. These sizeable demographic shifts will require significant changes in the way we approach the public's health.

Economic Development

Public health is an essential ingredient in all economic development strategies. Students cannot learn, and workers cannot produce, and businesses cannot thrive without good public health conditions: safe and healthy air to breathe, safe and healthy water to drink, safe and healthy food to eat, safe and healthy housing to habitat, safe and healthy transportation systems to travel or transport from place to place, safe and healthy lifestyles to promote high levels of wellness in the population. Public health is recognized internationally as a key building block for economic development, more so than in many domestic situations. The business and industry sector has a large stake in public health. Public health should be part of the State's ongoing economic development strategy.

2010 Health Objectives

The U.S. Public Health Service has already begun the process for establishing Year 2010 Health Objectives for the nation.[25] Rhode Island will have the opportunity to participate in the formulation of these national health objectives. More importantly, Rhode Island will have the opportunity to work off of these national health objectives to develop Year 2010 Health Objectives specifically for Rhode Island. This will be an opportunity for the Rhode Island community to come together and articulate an effective public health strategy for the first decade of the 21st century. This process has the potential to be an important departure point for the public's health in Rhode Island; a time when a lot of things could come together for the advancement of public health in Rhode Island.

[23] "Minority Population Grows in R.I., Conn, and Mass" Providence Journal Bulletin, December 26, 1997.

[24] "Gap Grows Between Health of Blacks, Whites" Providence Journal Bulletin, January 26, 1998

[25] Developing Objectives for Healthy People 2010, U.S. Department of Health and Human Services, September 1997.

EXPERIMENTS AND BEST PRACTICES

In order for public health to be successful in the future, it must reach across traditional lines and partner with agencies and individuals in the community that are in a strategic position to promote health and/or prevent disease. There are a number of innovative public health approaches unfolding in Rhode Island today. A few examples follow:

Adult Immunization Coalition

With financial support from CDC and HCFA, the Ocean State Adult Immunization Coalition was recently formed (1997) by the Department of Health, Blue Cross/Blue Shield of Rhode Island, and Rhode Island Quality Partners. It now includes 35 public and private agencies as members. The goal of this coalition is to reduce the morbidity and mortality associated with influenza and pneumococcal disease that afflicts the elderly each year. Currently in Rhode Island, only 45% of seniors get the flu shot annually, and only 16% have ever received the pneumococcal vaccine.

Childhood Immunization Program

Rhode Island maintains one of the country's highest levels of timely immunization against 10 childhood diseases through a variety of public health measures. The state makes vaccine available free of charge to all Rhode Island children utilizing a combination of federal funds, state appropriation, and a surcharge supported by the state's health insurers. The Immunization Program provides statewide assessment and surveillance capacity, and offers a variety of professional and public education programs.

Food Protection Manager Certification

Since 1993 when Rhode Island's regulation to certify managers in food protection became effective, over 6,000 managers have been certified and over 1,700 managers have been recertified in basic food safety. Each food establishment preparing hot potentially hazardous foods must have at least one supervisory level individual certified in food safety. Establishments serving primarily high-risk individuals must have a certified person on site during preparation of all hot potentially hazardous foods. Managers are certified after completing 15 hours or more of food safety training and passing an approved examination. With limited inspections, this program helps reduce the risk of foodborne illness by instructing industry managers how to identify and control the major causes of foodborne illness.

Healthy Mothers, Healthy Babies Coalition

The Healthy Mothers, Healthy Babies Coalition was initiated in 1984 by the Rhode Island Department of Health and the RI Chapter of the March of Dimes and now includes a large number of public, private, and community-based organizations dedicated to improving maternal

and child health in Rhode Island. Through its education, information dissemination and advocacy efforts throughout the state, the coalition hopes to impact and improve birth outcomes and healthy child development.

Healthy Schools! Healthy Kids!

With CDC support, the Department of Health is working closely with the Department of Education to improve the health of school aged children and their families through *the Healthy Schools! Healthy Kids!* Initiative which supports programming in the eight component areas of comprehensive school health: Nutrition, Physical Activity, Clinical Health Services; Counseling, Psychological and Social Services; Family and Community Involvement; School Environment; Health Promotion for Faculty and Staff; and Health Education. With leadership from the Division of Disease Prevention and Control, Rhode Island Department of Health staff are developing programming in all these areas.

Hearing Assessment Program

Since 1993, The Rhode Island Hearing Assessment Program (RIHAP) has provided hearing screening for every newborn infant in Rhode Island. This was the first program in the nation to have this universal screening coverage for all newborns. All eight birthing hospitals in RI utilize a screening method that will identify those infants that display hearing loss. Further testing, usually in the community, is then introduced to accurately diagnose what form of hearing loss has occurred. This allows family-focused intervention to occur for those infants and their families who have been diagnosed. Linkages to Kids Net, Family Outreach, Early Intervention and the Rhode Island School for the Deaf are integral services utilized to assure quality services are provided. This process has enabled children to be ready for school and able to communicate at their highest functioning level. In addition to receiving extensive national and local media coverage for this program, the Ford Foundation through its Innovations in American Government award program recognized Rhode Island's Hearing Assessment Program as a model for the entire country with a $20,000 grant award.

HIV Prevention Planning

The Department of Health continues to conduct a long term community planning process for HIV prevention in Rhode Island. The Rhode Island Community Planning Group (RICPG) for HIV Prevention is funded by a CDC grant and it includes an extensive capacity building program for minority organizations. The RICPG is composed of key constituents and adheres to specific guidelines to ensure parity, representation and inclusion of the at-risk population. This process has helped to shape the priorities associated with HIV prevention by creating an annual strategic plan, and monitoring, reviewing, and evaluating statewide services available to high risk groups.

KIDS NET

KIDS NET is a comprehensive program that coordinates screening, tracking, risk response, follow-up, and home visiting services through an integrated data management system. Nine different infant/toddler public health programs contribute data to the registry, which includes all children born in Rhode Island since January 1, 1997. Initial enrollment of pediatric medical providers into KIDS NET began during 1997 and will continue through 1998. Immunization data is being added to the system as providers enroll. Comprehensive follow-up and home visiting services are available for those children who are significantly delayed in receiving services and for those who would benefit from family support services.

Lead Control

Childhood lead poisoning is the major environmental health problem facing children in Rhode Island. With funding from CDC and HUD, the Department of Health has been working to assure that: all children are screened for lead poisoning according to recommended guidelines, those children identified with elevated blood leads receive environmental home inspections, and lead treatment services (medical, environmental, social) and education is provided to the public to prevent lead poisoning. The department's state wide effort to prevent lead poisoning is comprehensive, community based and multi disciplinary, and involves working with medical, housing, food service and legal professionals. Rhode Island's lead program is considered to be a national model.

Minority Health Advisory Committee

The Minority Health Advisory Committee was established as a result of 1992 State legislation authorizing and funding a minority health promotion program within the Department of Health. The Minority Health Advisory Committee is representative of all the major minority groups in Rhode Island including Native-Americans, African-Americans, Hispanic-Americans and Asian-Americans. The Minority Health Advisory Committee is actively involved in: needs assessment, planning, priority-setting, funding community-based projects, and sponsoring community forums.

Newborn Screening

In response to a federal mandate which requires States to seek out and offer Early Intervention services to children at risk for developmental delay, all babies born in Rhode Island hospitals are screened for developmental risk factors, usually within 48 hours of birth. This is accomplished through collection of demographic, child and parental characteristics primarily from the mother's and baby's medical records, the birth certificate work sheet, interfacing with hospital social workers, obstetric and pediatric nurses and physicians, and occasionally from direct family contact. If indicated, families are then referred directly to Early Intervention or to community-based home visiting services (KIDS NET Family Outreach Program) for a home assessment, family support, and a developmental screening at six months of age.

OSHA Consultation Program

The Department of Health's OSHA Consultation Program serves 150 to 200 companies each year by providing them with free safety and industrial hygiene technical assistance. The program, which is ninety percent funded through the U.S. Department of Labor, gives priority to requests from high hazard industries having fewer than 250 employees. The goal of the OSHA Consultation Program is to work together with company management in the identification and correction of hazards, along with the development of safety and health policies and programs, in order to reduce workplace injuries, illnesses and fatalities in Rhode Island.

Parent Consultant Program

The Division of Family Health (DFH) is committed to providing services that are family centered, community-based and culturally competent. The Parent Consultant Program plays an integral part in achieving this mission. Since 1988, by sharing their experiences as recipients of DFH's programs, parent consultants have increased staff members' understanding of the service needs of families. Parent Consultants are assigned to a DFH program and serve on committees and policy forums to provide the consumer perspective in program planning and evaluation. Community outreach is also a parent's important role and includes surveying programs or consumers in the community, participating in community assessments to determine the effectiveness of DFH services, and developing, reviewing and translating materials to update program participants. The parent consultant program currently has fourteen parents from diverse ethnic backgrounds and is supported by a combination of federal funds.

Prevention Coalition

The Prevention Coalition is a new (1996) public/private partnership to promote population-based, primary prevention initiatives. The Prevention Coalition membership includes the Department of Health, HMO's, health systems, hospitals, voluntary health agencies, and others. The Prevention Coalition selected "physical activity" as their first priority; and they have raised over $400,000 to fund community-based projects. In the first round of grants, the Coalition funded 15 projects with a total of $214,000.

Regulation of Managed Care

Rhode Island has one of the most comprehensive state programs for the regulation of various aspects of Managed Care. Utilization Review, HMOs, and Health Plans are regulated and overseen by a single office within the Department of Health. As a consequence, Rhode Islanders have responsive regulatory oversight of their managed health care services. Rhode Island's coordinated regulatory approach has been a model to many other states seeking to provide appropriate consumer protections.

Tobacco Control

With financial support from National Cancer Institute through Project ASSIST, the Rhode Island Department of Health has been working closely with the American Cancer Society/Rhode Island Division, the American Heart Association/Rhode Island Affiliate, the American Lung Association of Rhode Island and numerous community-based organizations to restrict the advertisement, sale, and use of tobacco products especially among youth, and to restrict exposure to the dangerous effects of secondhand smoke, a Class A carcinogen. Project ASSIST has worked in the community, schools, work sites and the health care sector to carry out its grassroots policy and media advocacy approach to decreasing tobacco use and exposure to secondhand smoke for all Rhode Islanders, especially children and youth.

Worksite Wellness Council

The Department of Health is in the process of facilitating the development of a Worksite Wellness Council in Rhode Island. The Department is working with private businesses in Rhode Island and the national WELCOA Program to launch the first such Worksite Wellness Council in New England. The purpose of the Council will be to foster the adoption of proven worksite health promotion strategies in Rhode Island, especially among small businesses in the State. Worksites are a major channel for health promotion/disease prevention efforts.

APPENDIX 1
Community-Based Grants and Contracts

Allen African Methodist Episcopal Church
American Lung Association
Bayside Health Center
Blackstone Valley Community Action
Blackstone Valley Health Center
Block Island Health Services
Boys & Girls Clubs of Providence
Cape Verdean American Community Development Corp.
Center for Hispanic Policy and Advocacy
Chad Brown Health Center
Childhood Lead Action Project
Church of God of Prophecy
CODAC
Community Baptist Church
Comprehensive Community Action
Dr. Martin Luther King Center
Duncan Avenue Arts Collaborative
Easter Seal Society of Rhode Island
FACTS House
Family Resources
Family Services, Inc.
Genesis Center
Greater Elmwood Neighborhood Services
Groden Center
Harvard Pilgrim Health Care
Health Center of South County
Hospice
Hospital Association of Rhode Island
House of Compassion
Initiatives For Human Development
Jammat Housing and Community Development, Inc.
John Hope Settlement House
Kent County Chapter for Retired Citizens
Kent County Hospital
Kent County Mental Health
Kent County Visiting Nurse Association
Landmark Medical Center
MAP Alcohol & Drug Rehab. Services
Marathon, Inc.
Memorial Hospital

APPENDIX 1 (cont.)

Miriam Hospital
New Jerusalem Church of God and Christ
New Visions of Newport County
Newport County Chapter for Retired Citizens
Newport Hospital
Northwest Health Center
Olney Street Baptist Church
Progreso Latino
Providence Ambulatory Health Care Foundation
Providence Center
Providence Community Action Agency
Providence Housing Authority
Rhode Island Coalition Against Domentic Violence
Rhode Island Council on Alcoholism
Rhode Island Employee Assistance Program
Rhode Island Hospital
Rhode Island Hospital/Hasbro Children's Unit
Rhode Island Indian Council
Rhode Island Project AIDS
Rhode Island Rape Crisis Center
Rhode Island Women's Health Collective
Rhode Island Youth Guidance Center
Roger Williams Medical Center
Self Help
Sheldon Street Church
Smith Hill Center
Socio Economic Development Center
South County Hospital
South Providence Neighborhood Ministries
SSTAR of Rhode Island
St. Jean Baptist Church
St. Joseph Health Services
Sunrise House
Thundermist Health Associates
Traveler's Aid Society of Rhode Island
Tri-Town Community Action Agency
Tri-Town Health Center
Trinity United Methodist Church
Urban League of Rhode Island
Visiting Nurse Health Services
VNS Homecare

APPENDIX 1 (cont.)

Westbay Community Action
Westerly Hospital
Westminster Senior Center
Women & Infants Hospital
Wood River Health Services
Woonsocket Senior Services
YMCA of Greater Rhode Island

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